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Chemical Safety Vulnerability Working Group Report

Volume 1 of 3

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Foreword

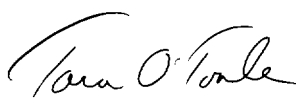
Issuance of this report marks the culmination of an intensive 4-month review conducted to identify chemical safety vulnerabilities existing at Department of Energy (DOE) facilities. These vulnerabilities represent circumstances or conditions with the potential to affect workers, the public, and the environment as a result of the manner in which hazardous chemicals have been, are being, or will be handled, used, treated, stored, or dispositioned. The Chemical Safety Vulnerability Review was authorized by Secretary Hazel R, O'Leary as a cooperative effort between the Office of Environment, Safety and Health (EH) and line management representatives from DOE Headquarters and field organizations.

Despite the presence of significant chemical hazards at DOE facilities, the potential risks associated with hazardous chemicals have historically received less attention than those involving radioactive materials. This imbalance resulted from a misperception that chemicals present an acceptable risk and that the hazards identified with ionizing radiation are greater than those of most chemicals. A number of large-scale incidents occurring at private-sector industrial chemical facilities have demonstrated the potentially catastrophic nature of chemical accidents. Such events, coupled with the Department's considerable inventory of hazardous chemicals, plus a number of operational mishaps at DOE facilities, illustrated the need for this review, The review is an integral part of the Department's efforts to raise its commitment to chemical safety to the same level as that for nuclear safety, to understand and manage hazardous chemicals more effectively, to prevent the continuation of existing vulnerabilities, and to improve the quality and comprehensiveness of all safety programs.

Conducting the review at this time is particularly relevant because the Department's shift in focus away from nuclear weapons production and toward environmental restoration will require cleanup of numerous chemically contaminated facilities. Cleanup of these facilities will present significant hazards, particularly to workers, due to the extensive, diverse, and (all too often) uncharacterized nature of their chemical inventories and the limited experience with many of the technologies that may be used for decontamination and decommissioning. To eliminate these chemical hazards, the work force is being asked to take an aggressive role in implementing chemical safety programs for which they have not historically been responsible, Management must ensure that adequate systems and programs are in place to anticipate, prevent, and mitigate hazards that might result in worker exposures or environmental releases,

This review represents a continuation of the problem-solving approach used last year to examine the condition of spent fuel stored at DOE facilities. As with the Spent Fuel Initiative, the review was coordinated by a Working Group of line management personnel from DOE and contractor field organizations in partnership with the Office of Environment, Safety and Health. This collaboration is in keeping with the EH philosophy of providing technical and programmatic assistance to field organizations in order to improve worker and public health and safety and protect environmental integrity. The spirit of cooperation and commitment demonstrated by the Chemical Safety Vulnerability Working Group was reflected in the candor of the information provided, the thoroughness of the review, and the detailed nature of the vulnerabilities identified.

Although a number of significant chemical vulnerabilities have emerged from this study, none represents imminent danger to the public, to worker health and safety, or to the environment. However, these vulnerabilities do require immediate and sustained management attention and may lead to more serious problems if preventive actions are not undertaken now. There are several underlying weaknesses in various DOE management systems that contribute to the perpetuation of these vulnerabilities. The best performers in the private sector have long recognized the need to eliminate or mitigate the risks associated with hazardous chemicals. DOE must learn from these examples and must also apply its own commendable practices more widely to reduce or remove chemical safety vulnerabilities from our facilities.



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